5

ABSTRACT OF THE DISCLOSURE

A compact turbo-molecular pump having a high depressurizing capability. A motor for rotating a rotor vane includes an air bearing. The air bearing has a rotary cylinder and a fixed surface surrounding the rotary The material of the rotary cylinder has a coefficient of thermal expansion that is smaller than that of the material of the fixed surface. Thus, change in the dimensions of the rotary cylinder is smaller than that of the fixed surface even if the temperature of the air bearing rises during operation of the pump. Thus, the rotary cylinder avoids contact with the fixed surface.

CERTIFICATE UNDER 37 CFR 110: The undersigned hereby certifies that this paper or papers, as described hereinabove, are being deposited in the United States Postal Service. "Express Mail Post Office to Addressee" having an Express Mail Malling label number of:

EL531629832US

in an envelope addressed to: Assistant Commissioner for Patents Washington, DC 20231

on this 28th day of January,

Crompton, Seager & Tufte, LLC